Please add new claims 156-183 as follows:

--156. (New) An isolated nucleic acid encoding a chimeric G protein, wherein the chimeric G protein comprises an invertebrate Gαq G protein from which at least five, but not more than twenty-one, contiguous amino acids beginning with the C-terminal amino acid have been deleted and replaced by a number of contiguous amino acids present in a vertebrate G protein beginning with the C-terminal amino acid of such vertebrate G protein, wherein such number equals the number of amino acids deleted; provided that upon activation the chimeric G protein produces a Gαq second messenger response.--

--157. (New) The nucleic acid of claim 156, wherein the nucleic acid is DNA.--

--158. (New) The DNA of claim 157, wherein the DNA is cDNA.--

--159. (New) The DNA of claim 157, wherein the DNA is genomic DNA and consists essentially of nucleotides encoding the chimeric G protein.--

--160. (New) The nucleic acid of claim 156, wherein the nucleic acid is RNA.--

--161. (New) The nucleic acid of claim 156, wherein the vertebrate G protein is a mammalian G protein.--

--162. (New) The nucleic acid of claim 156, wherein the contiguous amino acids which have been deleted are

contained in FVFAAVKDTILQHNLKEYNLV* (SEQ ID NO: 37), wherein V* is the C-terminal amino acid.--

--163. (New) The nucleic acid of claim 156, wherein the vertebrate G protein is a vertebrate Gαz G protein.--

--164. (New) The nucleic acid of claim 163, wherein the number of contiguous amino acids which have replaced the deleted amino acids are contained in FVFDAVTDVIIQNNLKYIGLC* (SEQ ID NO: 38), wherein C* is the C-terminal amino acid.--

--165. (New) The nucleic acid of claim 163, wherein the invertebrate Gαq G protein has five contiguous amino acids beginning with the C-terminal amino acid which have been deleted and replaced by five contiguous amino acids beginning with the C-terminal amino acid of a vertebrate Gαz protein.--

--166. (New) The nucleic acid of claim 156, wherein the vertebrate G protein is a vertebrate Gαs G protein.--

--167. (New) The nucleic acid of claim 166, wherein the number of contiguous amino acids which have replaced the deleted amino acids are contained in RVFNDCRDIIQRMHLRQYELL* (SEQ ID NO: 39), wherein L* is the C-terminal amino acid.--

--168. (New) The nucleic acid of claim 166, wherein the invertebrate Gαq G protein has nine contiguous amino acids beginning with the C-terminal amino acid which have been deleted and replaced by nine contiguous

amino acids beginning with the C-terminal amino acid of the vertebrate Gαs protein.--

--169. (New) The nucleic acid of claim 156, wherein the vertebrate G protein is a vertebrate Gαi3 G protein.--

--170. (New) The nucleic acid of claim 169, wherein the number of contiguous amino acids which have replaced the deleted amino acids are contained in FVFDAVTDVIIKNNLKECGLY* (SEQ ID NO: 40), wherein Y* is the C-terminal amino acid.--

--171. (New) The nucleic acid of claim 169, wherein the invertebrate Gαq G protein has five contiguous amino acids beginning with the C-terminal amino acid which have been deleted and replaced by five contiguous amino acids beginning with the C-terminal amino acid of the vertebrate Gαi3 G protein.--

B1

--172. (New) The nucleic acid of claim 156, wherein the vertebrate G protein is a vertebrate Gαi1 G protein, a vertebrate Gαi2 G protein, a vertebrate GαoA G protein, or a vertebrate GαoB G protein.--

--173. (New) The nucleic acid of claim 156, wherein the invertebrate Gαq G protein is a *Caenorhabditis elegans* Gαq G protein.--

--174. (New) The nucleic acid of claim 156, wherein the invertebrate Gαq G protein is a *Drosophila melanogaster* Gαq G protein, a *Limulus polyphemus* Gαq G protein, a

*Patinopecten yessoensis* Gαq G protein, a *Loligo forbesi* Gαq G protein, a *Homarus americanus* Gαq G protein, a *Lymnaea stagnalis* Gαq G protein, a *Geodia cydonium* Gαq G protein, or a *Dictyostelium discoideum* $G\alpha_4$ G protein.--

--175. (New) The nucleic acid of claim 156, wherein the chimeric G protein has an amino acid sequence shown in (a) Figure 2, *C. elegans* $G\alpha_{q/z5}$ (SEQ ID NO: 1); (b) Figure 2, *C. elegans* $G\alpha_{q/z9}$ (SEQ ID NO: 2); (c) Figure 2, *C. elegans* $G\alpha_{q/s9}$ (SEQ ID NO: 3); (d) Figure 2, *C. elegans* $G\alpha_{q/s21}$ (SEQ ID NO: 4); (e) Figure 2, *C. elegans* $G\alpha_{q/i3(5)}$ (SEQ ID NO: 5); or (f) Figure 2, *D. melanogaster* $G\alpha_{q/z5}$ (SEQ ID NO: 41).--

B1

--176. (New) The nucleic acid of claim 156, wherein the Gαq second messenger response comprises release of inositol phosphate.--

--177. (New) The nucleic acid of claim 156, wherein the Gαq second messenger response comprises release of intracellular calcium or calcium mobilization.--

--178. (New) The nucleic acid of claim 156, wherein the Gαq second messenger response comprises calcium mobilization.--

--179. (New) A vector comprising the nucleic acid of claim 156.--

--180. (New) A vector of claim 179 adapted for expression in a cell which comprises the regulatory elements necessary for expression of the nucleic acid in the cell operatively linked to the nucleic acid encoding the chimeric G protein so as to permit expression thereof, wherein the cell is a bacterial, amphibian, yeast, insect, or mammalian cell.--

--181. (New) The vector of claim 180, wherein the vector is a plasmid, a baculovirus, or a retrovirus.--

--182. (New) A cell comprising the vector of claim 179, wherein the cell comprises DNA encoding a mammalian G protein-coupled receptor.--

--183. (New) A cell of claim 182, wherein the DNA encoding the mammalian G protein-coupled receptor is endogenous to the cell.--

**REMARKS**

Claims 1-22 and 77 and 141 were pending in the subject application. Claims 77 and 141 are withdrawn from consideration. By this Amendment, applicants have canceled claims 1-22 and added new claims 156-183. Accordingly, upon entry of this Amendment, claims 156-183 will be pending and under examination.

Applicants maintain that new claims 156-183 do not raise any issue of new matter. Support for claim 156 may be found inter alia in the specification, as originally-filed, on page 30, lines 14-3; and page 29, lines 2-5. Support for claims 157-160 may be found inter alia in the specification, as originally-filed, on page 10, lines 25-28; and page 32, line 4 through page 37, line